FRI0030

MORE THAN HALF OF NEWLY DIAGNOSED RA PATIENTS ARE NOT CONVINCED OF THE NECESSITY OF RA MEDICINES: ASSOCIATIONS WITH RA CHARACTERISTICS, SYMPTOMS, AND FUNCTION IN THE CANADIAN EARLY ARTHRITIS COHORT (CATCH)

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Background: Although DMARDs are essential for early aggressive control of RA to reduce symptoms and disability, medication adherence is variable. Beliefs about the necessity of medications and safety concerns predict adherence and are modifiable.

Objectives: To examine associations among RA medication necessity beliefs and concerns, sociodemographics, RA characteristics, symptom level and function in newly diagnosed RA patients.

Methods: Baseline data were analyzed from participants in the Canadian Early Arthritis Cohort (CATCH) who enrolled between 2017-2020 and completed the Beliefs about Medicine Questionnaire (BMQ) and PROMIS-29. All met ACR1987 or 2010 ACR/EULAR criteria and had active RA at enrollment. BMQ Necessity (N) and Concerns (C) scores were classified as **high** (≥ 20) or **low** (< 20) and categorized into: Accepting ($\uparrow$ N $\downarrow$ C); Ambivalent ($\uparrow$ N $\uparrow$ C); Sceptical ($\downarrow$ N $\uparrow$ C); and 4) Indifferent ($\downarrow$ N $\downarrow$ C). Groups were compared using ANOVA and chi-square tests.

Results: The 362 patients were mostly white (83%) women (66%) with a mean (SD) age of 56 (15), symptom duration of 6 (3) months, and 32% were obese (BMI ≥ 30). More than half (56%) were DMARD-naïve or minimally exposed. Mean N and C scores were similar between men and women; 54% were classified as **Indifferent**, 31% **Accepting**, 9% **Ambivalent**, and 6% **Sceptical**.

As compared to those classified as **Accepting**, more **Indifferent** participants smoked, had a healthy weight, lower TJC, and trend for lower CDAI (Table). Groups were similar by sociodemographics, symptom duration, and DMARD/steroid use, except fewer **Indifferent** patients received MTX. **Indifferent** patients had statistically and meaningfully lower patient global, depression, anxiety, fatigue and pain interference, and higher function and participation scores (Table).

Conclusion: Many new RA patients had low medication necessity beliefs and concerns, and only 31% had high necessity beliefs and low concerns around diagnosis. Lifestyle and lower CDAI, TJC, symptoms and functional impacts were associated with RA medication indifference. Identifying medication indifference can prompt discussions about medication beliefs/concerns to facilitate shared decision-making and adherence.

Mean (SD) or N (%)	Accepting	Ambivalent	Sceptical	Indifferent	SIG
N (%)	112 (31%)	34 (9%)	21 (6%)	195 (54%)	—
Age	57 (15)	57 (14)	56 (12)	55 (15)	0.518
Women	68 (62%)	21 (62%)	14 (70%)	127 (69%)	0.605
Minority	13 (12%)	8 (24%)	2 (10%)	36 (20%)	0.173
Education > HS	69 (62%)	21 (62%)	12 (57%)	119 (61%)	0.862
Currently smoking	10 (9%)	10 (30%)	4 (20%)	30 (17%)	.010
Former smoker	50 (47%)	13 (39%)	12 (60%)	62 (35%)	
Never smoked	47 (44%)	10 (30%)	4 (20%)	87 (49%)	
Healthy BMI (<25)	8 (28%)	22 (22%)	6 (33%)	67 (41%)	.036
Overweight (25-30)	12 (41%)	47 (46%)	6 (33%)	46 (28%)	
Obese (30+)	9 (31%)	33 (32%)	6 (33%)	52 (32%)	
Symptom duration (m)	5.3 (2.8)	5.1 (2.9)	5.1 (3.2)	5.8 (3.0)	0.411
Tender joint (0-28)	9 (7) _a	8 (6) _{ab}	8 (6) _{ab}	7 (6) _b	0.032
Swollen joint (0-28)	8 (6)	7 (5)	8 (5)	6 (5)	0.203
CDAI	26.8 (12.5) _a	28.0 (14.8) _{ab}	26.9 (11.6) _{ab}	22.9 (12.5) _b	0.011
Methotrexate	91 (81%)	24 (71%)	15 (71%)	130 (67%)	0.057
Non-MTX DMARDs	60 (54%)	20 (59%)	12 (57%)	105 (54%)	0.943
Oral steroids	37 (33%)	10 (29%)	8 (38%)	46 (24%)	0.222
Parenteral steroids	39 (35%)	11 (32%)	6 (29%)	59 (30%)	0.852

	BMQ Classification								SIG
	Accepting (High N Low C)		Ambivalent (High N High C)		Sceptical (Low N High C)		Indifferent (Low N Low C)		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Patient Global (0-10)	5.2 _a	2.7	6.0 _a	2.9	5.8 _a	2.6	4.4 _b	2.6	<0.0001
Pain (0-10) V0	5.8 _a	2.8	7.0 _b	2.8	5.9 _{ab}	2.8	5.2 _a	2.8	0.0013
PHQ8 Depression	7.3 _a	5.6	11.8 _b	7.4	7.5 _{ac}	6.6	5.4 _c	5.0	0.0051
PROMIS-29									
Physical Function	39.4 _a	7.7	37.4 _a	7.1	38.4 _a	8.3	42.4 _b	7.9	0.0001
Depression	51.9 _a	9.6	57.9 _b	11.5	56.9 _b	9.3	49.6 _c	9.3	<0.0001
Anxiety	58.5 _a	9.5	52.5 _b	9.6	58.4 _a	8.6	50.7 _c	9.7	<0.0001
Fatigue	55.7 _a	10.2	57.7 _a	10.4	54.9 _{ab}	12.3	51.8 _b	10.9	0.0018
Sleep Disturbance	53.0 _a	8.8	54.5 _b	6.7	55.4 _b	6.8	53.0 _a	9.0	0.5367
Participation	41.8 _a	10.0	40.6 _a	10.2	40.8 _{ab}	8.1	44.2 _b	9.6	0.0553
Pain Interference	62.1 _a	7.8	64.1 _a	8.1	62.2 _{ab}	8.5	58.9 _b	8.8	0.0004

Note: Values in the same row with differing subscripts are significantly different ($p < 0.05$).

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FRI0031

OBSERVATIONS ON BIOMARKERS IN VERY EARLY RHEUMATOID ARTHRITIS CONSECUTIVELY RECRUITED OVER 20 YEARS, FROM BASELINE PRESENTATION TO FIVE-YEAR OUTCOMES

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Background: Since July 1998, the Early Undifferentiated PolyArthritis (EUPA) cohort recruited consecutive adults with recent-onset immune-mediated polyarthritis^{1,2}. Patients were treated aiming at 0 swollen joint.

Objectives: To analyze the impact of biomarkers over 20 years on baseline variables, treatments, comorbidities and outcomes over the first 5 years of follow up.

Methods: Variables and Outcomes were collected over 5 years in consecutive patients fulfilling RA criteria, grouped according to date of inclusion (Period 1: 1998-2004; Period 2: 2005-2010; Period 3: 2011-2018). Comparisons of baseline characteristics, treatment, and outcomes over 5 years between the 3 Periods were previously presented (ACR 2018 and 2019). Erosive damage was scored according to Sharp/van der Heijde; erosive status was defined as ≥ 5 Erosion units. We now present observed associations between the presence of baseline prognostic biomarkers (anti-CCP2 (ACPA), RF, anti-Sa, and erosive status) with concomitant and subsequent disease activity levels, radiographic scores, comorbidities and impact of treatment. False discovery rate correction was used to adjust p-values for multiple comparisons.

Results: 753 patients were included: 247, 263 and 243 in Periods 1, 2 and 3, respectively. Variables at baseline. No biomarkers, including erosive status, were associated with demographics or disease activity. Erosive disease was more prevalent in ACPA+ (19.9% vs 13.9%, $p=0.0417$). Current smoking decreased by period (20.6, 17.2, 8.6%; $p=0.02$) in ACPA negatives only, remaining stable among ACPA+ (25.3, 20.9, 18.8%, NS). All comorbidities were significantly more present in ACPA negatives vs positives (RR between 1.55 and 1.99). Prevalence of cardiovascular (CV; 44.8, 55.0, 60.0%; $p=0.036$) and cancer (4.1, 7.1, 13.1%;